



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,831	09/05/2003	Erwin Baiker	HOE-774	8428
20028	7590	09/27/2005	EXAMINER	
Lipsitz & McAllister, LLC 755 MAIN STREET MONROE, CT 06468			KOEHLER, CHRISTOPHER M	
			ART UNIT	PAPER NUMBER
			3726	
DATE MAILED: 09/27/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary	Application No. 10/656,831	Applicant(s) BAIKER, ERWIN	
	Examiner Christopher M. Koehler	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/12/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in this application.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 1/12/2004 is being considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9, 11-13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avery et al. (US Patent No. 4,230,426) in view of Russell (US Patent No. 4,773,113).
5. Regarding claims 1 and 2, Avery teaches a device for carrying out a blasting treatment of the inner wall of a metal pipe in the form of a channel with a stream of granular material comprising a tube (7) for introducing a stream of granular material (x) into a channel (2). Avery also teaches a tube with an outlet end (8) having an attached

Art Unit: 3726

stream deflection and outlet device (10) for directing the granular material against the channel wall. Avery does not teach a device for carrying out a blasting treatment in a metal pipe with a curvature and a device with a friction reducing protrusion between the tube and the inner wall of the channel. Russell teaches a device that emits a medium into a curved pipe for cleansing of the inside of the pipe (figure 8A and col. 9, lines 47-49). Russell's device comprises a flexible hose (26B figure 5 and 110 figure 6) wrapped in a metal coil (26A and 114), which is considered a friction reducing protrusion. It would have been obvious to one of ordinary skill in the art at the time of invention to apply the hose structure of Russell to the blasting tube of Avery in order to blast treat the inner wall of a curved channel.

6. Regarding claim 3, Avery/Russell as described above discloses the claimed invention except for the material choice of polyurethane. It would have been obvious to one of ordinary skill in the art at the time of invention to use polyurethane, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

In re Leshin, 125 USPQ 416. Be it known to the applicant that Irwin (US Patent No. 5,933,903) also teaches the use of an elastomeric material, which is equivalent to polyurethane, in an equivalent structure for the purpose of making the tube flexible.

7. Regarding claim 4, Russell teaches an elongated projection with a rounded crest facing away from the tube wall. See metal coil member (26A and 114).

8. Regarding claim 5, Russell teaches a metallic projection. See metal coil member (26A and 114).

Art Unit: 3726

9. Regarding claim 6, Russell teaches a projection that is flexible. See metal coil member (26A and 114) and col. 8, lines 11-13.

10. Regarding claim 7, Russell teaches a tube with a projection over approximately its entire length to be inserted in a channel (col. 9, lines 57-65).

11. Regarding claim 8, Russell teaches a projection formed by a wire-like element. See metal coil member (26A and 114).

12. Regarding claim 9, Russell teaches a projection that surrounds the tube in a spiral shape. See metal coil member (26A and 114).

13. Regarding claim 11, Russell teaches that the diameter of the wire-like element is at most equal to the thickness of the wall of the tube. See Figure 8A.

14. Regarding claim 12, Russell teaches a projection formed by a helical spring enclosing the tube. See metal coil member (26A and 114).

15. Regarding claim 13, Russell teaches that the distance between sections of the helical spring adjacent to one another in a longitudinal direction of the tube is approximately the same as or smaller than the diameter of the spring wire when the tube extends in a straight line. See Figure 5.

16. Regarding claim 15, Avery teaches a method for carrying out a blasting treatment of the inner wall of a channel with a stream of granular material in particular the inner wall of a metal pipe with a stream of metal balls (x). Avery also teaches that the device is introduced to the channel and turned about the tube axis as well as moved along the channel during the blasting treatment (col. 3, lines 6-13). Avery does not teach that the metal pipe has at least one curvature. Russell teaches a device that emits a medium

Art Unit: 3726

into a curved pipe for cleansing of the inside of the pipe (figure 8A and col. 9, lines 47-49). Russell's device comprises a flexible hose (26B figure 5 and 110 figure 6) wrapped in a metal coil (26A and 114). It would have been obvious to one of ordinary skill in the art at the time of invention to substitute the hose structure of Russell for the blasting tube of Avery in order to blast treat the inner wall of a curved channel.

17. Claims 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Avery in view of Russell as applied to claims 1-9, 11-13, and 15 above, and further in view of Irwin (US Patent No. 5,933,903).

18. Regarding claim 10, Avery/Russell defines the device of claim 1 and claim 9. Avery/Russell does not explicitly teach that the ends of the spiral are held in a longitudinal direction of the tube so as to be non-displaceable relative to the tube. Irwin teaches a means of holding the spiral in a non-displaceable manner at both ends (53 figure 4 and identical structure figure 8). It would have been obvious to one of ordinary skill in the art at the time of invention to apply the holding means of Irwin to the tube structure of Avery/Russell to prevent the coil from moving longitudinally along the tube structure.

19. Regarding claim 14, Avery/Russell defines the device of claim 1 and claim 13. Avery/ Russell does not teach that the sections of the helical spring adjacent to one another in a longitudinal direction of the tube abut one another when the tube extends in a straight line. Irwin teaches that the sections of the spring encasing the tube abut one another when in a straight line (Figure 6). It would have been obvious to one of ordinary

Art Unit: 3726

skill in the art at the time of invention to apply the spacing of the coil of Irwin to the coil of Avery/Russell to prevent the coil from impairing the flexibility of the tube.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Koehler whose telephone number is (571)272-3560. The examiner can normally be reached on Mon.-Fri. 7:30A-4:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571)272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMK



David P. Bryant
Primary Examiner